


What Is Claimed Is:


1. A method of determining a reflective surface of a reflector used in a vehicle lamp, comprising:

5 a basic condition setting step of setting basic conditions including a light source position in which a light source is disposed, an optical axis that is the direction in which light from said light source is reflected by a reflective surface of a reflector, and a reflective surface outline of said reflective surface as viewed from the direction of said optical axis;

10 a segmentation condition setting step of setting segmentation conditions including a segmentation axis that is perpendicular to said optical axis and designates the direction in which the inside of said reflective surface outline is segmented into a plurality of reflection regions, and a number of segments into which the inside of said reflective surface outline is segmented along said segmentation axis;

15 a reflection condition setting step of setting reflection conditions for each of said plurality of reflection regions, including a reflection angle that designates the direction in which light from said light source is reflected by a segment surface that forms said reflective surface in that reflection region in terms of the angle in the direction of said segmentation axis as viewed from said optical axis, and a solid angle condition that

the solid angle of said segment surface when viewed from said light source should satisfy; and

5 a reflective surface determining step of, based on said basic conditions, said segmentation conditions and said reflection conditions, segmenting the inside of said reflective surface outline to generate said plurality of reflection regions, creating a surface shape of said segment surface corresponding to each of said plurality of reflection regions, and determining a surface shape that satisfies a prescribed light distribution condition for the whole of said reflective surface composed of said segment surfaces.

10 2. The method according to claim 1, wherein said reflective surface determining step has:

15 a reflection region generating step of segmenting the inside of said reflective surface outline by a plurality of segmentation lines approximately perpendicular to said optical axis and said segmentation axis to generate said plurality of reflection regions, while referring to said number of segments and said solid angle conditions; and

20 a segment surface creating step of creating the surface shape of said segment surface corresponding to each of said plurality of reflection regions with the direction of said reflection angle for that reflection region taken as a reflection axis, while referring to said reflection angles.

25 3. The method according to claim 1, wherein, in said reflective surface determining step, the surface shapes

of said segment surfaces corresponding to said plurality of reflection regions are created in order from a reflection region on the side of said light source towards a reflection region on the outside, or from a reflection region on the outside towards a reflection region on the side of said light source, such that a prescribed connection condition is satisfied for adjacent ones of said segment surfaces.

4. The method according to claim 1, wherein, in said basic condition setting step, the shape of a light-emitting region of said light source is set as one of said basic conditions such that the longitudinal direction thereof is approximately perpendicular to said optical axis, and in said segmentation condition setting step, said segmentation axis is set so as to be approximately perpendicular to said optical axis and the longitudinal direction of the shape of said light-emitting region.

5. The method according to claim 1, wherein, in said reflection condition setting step, said reflection angle for each of said plurality of reflection regions is set to be zero or a negative angle as viewed from said optical axis.

6. A vehicle lamp, comprising:

a light source;

a reflector having a reflective surface that reflects light from said light source in the direction of a prescribed optical axis; and

a lens through which light reflected by said reflective surface passes;

5 wherein said reflective surface of said reflector is such that the inside of a reflective surface outline is segmented into a plurality of reflection regions along a segmentation axis that is perpendicular to said optical axis by a plurality of segmentation lines that are approximately perpendicular to said optical axis and said segmentation axis, and, for each of said plurality of reflection regions, 10 a surface shape of a segment surface which forms said reflective surface in that reflection region is formed in a surface shape having as a reflection axis the direction of a reflection angle in the direction of said segmentation axis as viewed from said optical axis, said reflection angle being set for each of said reflection regions. 15

7. The vehicle lamp according to claim 6, wherein said light source is installed such that the longitudinal direction of the shape of a light-emitting region thereof is approximately perpendicular to said optical axis, and 20 said reflective surface of said reflector is formed with an axis approximately perpendicular to said optical axis and the longitudinal direction of the shape of said light-emitting region being taken as said segmentation axis.

8. The vehicle lamp according to claim 6, wherein 25 said reflective surface of said reflector is formed with said reflection angle for each of said plurality of

reflection regions being set to be zero or a negative angle  
as viewed from said optical axis.

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